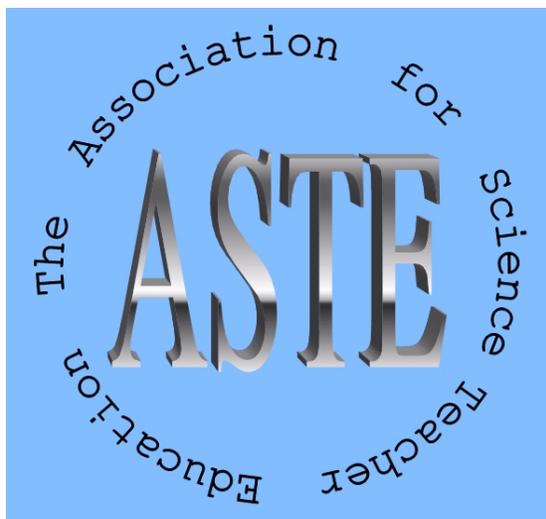


ASTE NEWSLETTER



President's Newsletter Message

John Tillotson, ASTE President

As I begin my term as President, there is much to be excited about within our vibrant organization that continues to thrive thanks to the hard work and scholarship of the nearly early 800 science teacher educators, scientists, professional development providers, informal educators, and K-12 representatives who call ASTE their professional home. Randy Bell, our outgoing President, along with outgoing Past President Meta Van Sickle and ASTE Board Members Brenda Capobianco and Kathy Cabe-Trundle deserve high praise for their leadership this past year. They set the bar high for future ASTE Boards in terms of the accomplishments made during their tenure.

By all accounts, the 2012 ASTE Conference in Clearwater Beach was a huge success. Not only was the venue spectacular, but the overall quality of the presentations and workshop sessions is a testament to the outstanding scholarship of our members. There are too many people responsible for the success of the 2012 conference to thank each of them individually, but I do want to acknowledge the tireless efforts of

WINTER 2012

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General Announcements

Promoting leadership and support for those involved in the professional development of science teachers

the 2012 conference planning committee consisting of Dana Zeidler, Malcolm Butler, Ben Herman, and Alan Feldman whose behind-the-scenes work resulted in an exceptional conference event.

In looking back at how ASTE has evolved over the past decade, there has been one constant figure that has played an integral role in virtually every aspect of the operation of our organization. As Eugene

President's Newsletter Message Continued

Wagner retires from his Executive Director post, ASTE owes him a tremendous debt of gratitude for his selfless dedication, vision, financial acumen, and his incredible management skills in guiding us through many important initiatives that have made the organization the success it is today. Eugene brought his sense of humor and even temperament to every situation, and we wish him well in his future endeavors.

Although Eugene's departure leaves some large shoes to fill, ASTE is very pleased to welcome Robert Hollon as our new Executive Director who began training for the post last summer and took over the reins full-time this past January. Bob has accumulated a wealth of experience as a longtime member of ASTE where he has filled many important roles over the course of his academic career, and he has already made a seamless transition into the ED role. ASTE is in excellent hands with Bob managing the daily operations of our organization.

ASTE also welcomes a newcomer, John Rhea, as our Director of Electronic Services. John will be responsible for managing all of the electronic functions related to ASTE including the website, online conference registration system, and the electronic membership renewal services. John has a strong background in technology and web-based services and currently works full time in this role at the University of Virginia.

Throughout the coming year, there are many exciting initiatives underway that will continue to move ASTE into an even more prominent and visible position within the larger science education community. ASTE is currently undergoing a total image makeover that will include a new organizational logo and a completely redesigned web site that will offer greater functionality and better serve the needs of both our own members and those seeking to learn more about ASTE and access our resources. A search is currently underway to select new editors for our flagship publication the *Journal of Science Teacher Education*. Lynn Bryan and John Staver have done a marvelous job during their tenure as editors and our goal is to select another outstanding editorial team to lead the journal for the next five years. A search will also be conducted this year for a new editor of the ASTE Science Section of the *Contemporary Issues in Technology and Teacher Education* (CITE) journal who will take over the editorial duties from Rebecca Schneider, who has done an excellent job with spearheading ASTE's role with this journal. Finally, we are excited to welcome our newest ASTE Newsletter co-editors, Ronald Herman and Rommel Miranda, who are taking over for Todd Campbell who deserves many thanks for taking the newsletter to new heights in terms of its overall quality and appearance.

Already, plans for the 2013 ASTE Conference in beautiful, historic Charleston, South Carolina are in full swing. Conference Planning Committee Co-Chairs Meta Van Sickle and William Veal have put together a conference agenda around the theme "Science Education through a Historical and Cultural Lens" that ASTE members won't want to miss. We look forward to seeing you January 9-12, 2013 in Charleston.

As is true for any professional organization, the vitality of ASTE depends largely on the actions of its members. At a time when there continues to be escalating attention placed on science, technology, engineering and mathematics (STEM) education in the United States, ASTE must be prepared to take the lead in shaping policy decisions regarding the preparation, support, and retention of science teachers. In future newsletters, I will expand on the steps ASTE is taking to respond to these important challenges.

2012 ASTE AWARDS

2012 Award I Level II, Science Educator Award - Rebecca Schneider



Award I Level 2, the *Outstanding Science Teacher Educator of the Year Award*, recognizes the individual achievements and contributions of persons spanning more than ten years in their career service.

Dr. Mark Templin, Associate Professor of Science Education at The University of Toledo, nominated Dr. Schneider for this award.

Rebecca Schneider is an Associate Professor of Science Education and Director of Secondary Teacher Education at The University of Toledo. Her research is focused on science teachers' thinking and their development as professionals. Her recent efforts include designing a graduate level preservice program focused on teacher learning progressions as well as a collaborative cyber workspace for teachers new to mentoring and e-learning. In honor of this recognition, Dr. Schneider received an inscribed plaque and \$1,000 from Carolina Biological Supply.

2012 Award II, Outstanding Mentor Award – Alec Bodzin



Award II, the *Outstanding Mentor Award*, recognizes outstanding accomplishments in contributing to the professional development of pre-service and in-service science teachers and teacher educators.

Dr. Starlin Weaver, Associate Professor of Science Education at Salisbury University, nominated Dr. Bodzin for this award.

Dr. Alec Bodzin is an Associate Professor of Science Education at Lehigh University. Dr. Bodzin designs and implements professional development initiatives with school teachers and administrators to promote science education reform. He works directly with doctoral students through co-teaching methods courses, professional development institutes, and disseminating their work at professional meetings. In addition, he also mentors ASTE members through leadership opportunities in the science teacher education profession.

In honor of this recognition, Dr. Bodzin received an inscribed plaque and \$1,000 from Frey Scientific. Frey Scientific, a subsidiary of Delta Education, is the continuing sponsor of our Award II.

2012 ASTE AWARDS CONTINUED

2012 Award IV, Best Paper on Innovation in Teaching Science Teachers

Award – Michele Koomen and Jamie Mitchell

Award IV, *Innovation in Teaching Science Teachers*, recognizes the best paper submitted for nomination and presented at the ASTE 2012 conference that seeks to encourage the development and dissemination of new designs for courses and curricula, new instructional methods or approaches, and other types of innovations in the pre- or in-service education of teachers of science.

The title of their award winning paper is:
Descriptive Inquiry in the Throes of Learning to Teach: Can Prospective Teachers Learn to Teach and Study their Teaching Closely?

Dr. Michele Hollingsworth Koomen is an associate professor of education at Gustavus Adolphus College where her teaching and scholarship focus on pre-service science and mathematics teacher preparation, exemplary teachers, and learning by under-represented youth in science and math classrooms. Her current pedagogical practices require preservice teachers to learn and apply qualitative research methods within the context of their early classroom teaching experiences.

Jamie Mitchell is a 2010 graduate of Gustavus Adolphus College where she majored in elementary education with a concentration on literature and communication. It was during her practicum teaching experience at Gustavus, under the direction of Professor Michele Hollingsworth Koomen, that Jamie began to utilize metacognition and qualitative research to improve her own teaching methods, currently she is teaching at the Primrose school in Rochester, Minnesota.

Frey Scientific makes the award of \$1,000 possible.

2011 Award V, Implications of Research for Educational Practice Award – Amy Moreland and Mary Hobbs

Award V: *Implications of Research for Educational Practice* recognizes the best ASTE 2011 paper presentation that seeks to identify a persistent and recurring problem in the practice of science teacher education. The paper should develop strategies to resolve the problem based upon a comprehensive synthesis of relevant research and interpret theory and research for practice.

This award is for Dr. Moreland and Dr. Hobbs paper entitled: *A Mixed Methods Study of Mid-Career Science Teachers: The Growth of Professional Empowerment*

Dr. Amy Moreland is the professional development coordinator for the Center for Inquiry in Math and Science at The University of Texas at Austin College of Natural Science. Amy taught general science at the middle school and community college levels, and her professional work focuses on K-5 science teacher education. Her research interests include teacher empowerment, inquiry-based learning and instruction, and informal science education.

Dr. Mary Hobbs is Coordinator for Science Initiatives for the Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching at The University of Texas at Austin. She is currently Co-PI on an NSF-funded research project on early childhood science. She is a past president of the Texas Science Education Leadership Association, and her research interests include teacher empowerment, professional development design and implementation, and early childhood science education.

Carolina Biological Supply has made possible a cash award of \$1,000.

2012 ASTE AWARDS CONTINUED



AWARD V – Amy Moreland (Left)/Mary Hobbs (Not Pictured)
AWARD IV – Michelle Koomen (Right)/ Jamie Mitchell (Not Pictured)



2012 Fun Run Participants
**NOTE: SPECIAL THANKS TO PENNY GILMER FOR ALL
ASTE CONFERENCE PHOTOS**

Making Plans for the January 9-12, 2013 ASTE International Conference in Charleston, South Carolina

We are all looking forward to ASTE 2013 in Charleston, SC. Here are some details to assist you in planning for the conference.

Session Types

Traditional Paper Set - Each one hour set will consist of three presenters whose papers relate to the same thread. Each presenter will discuss a research study, philosophical viewpoint, position, or innovative idea. The session presider will manage the time and facilitate the transition from one presenter to the next. 20 minutes per presenter.

Experiential - Each presenter will facilitate a 1 hour hands-on session in which participants interact with specific materials/equipment, methods, activities, or technology applications.

Roundtable - Each 1 hour roundtable offers the opportunity for participants to share and discuss syllabi, creative pedagogy, issues and trends, and research in an intimate and informal manner. Each participant will provide a brief (5 minutes) synopsis prior to the discussion. The audience will have time to circulate among tables.

Poster Presentation - Each presenter will prepare and display a visual representation of a research study (completed or in-progress), issue, or practice related to science teacher preparation. Appropriate displays include posters or other creative formats. Presenters will participate in one-on-one conversations about their displays.

Themed Paper Set - Each set consists of multiple papers decided by the authors to share a common theme. Each presenter will discuss a research study, philosophical viewpoint, position, or innovative idea. The session presider will manage the time and facilitate the transition from presenter to the next. A discussant can be included or provided.

Professional Development Workshop

Each 1-3 hour workshop provides information and interaction with a new approach to some aspect of science teacher preparation. Workshops will be offered during both the pre-conference and conference sessions.

The following strands are planned for the 2013 Conference:

College and University Science

Equity and Diversity

Science Teacher Professional Development

Policy and Reform

Educational Technology

STEM Education

Curriculum, Pedagogy, and Assessment

Preservice Science Teacher Preparation

Student Learning P-12

History, Philosophy, and Nature of Science

Informal Science Education

Ethnoscience Education

ASTE ELECTION NEWS

Thank you to everyone who participated in the 2012 ASTE election process. We received a large number of nominations and were able to advance a slate of many highly qualified members for each of the positions.

Thank you to those who voted. Everyone's vote really made a difference; some of our candidates were separated by less than ten votes. Also, for one position, we had an exact equal number of votes which necessitated a "run-off". We hope that with an entirely electronic process and several friendly reminders to vote, that more of our membership will vote in future elections.

Please do take the short time it takes to cast your votes in the 2013 election. If there is something we could do to facilitate the voting process, please do let us know. Your ASTE officers are here to serve you and make sure our organization is meeting our profession's current and future needs.

Our new officers for ASTE are:

<u>President-Elect</u>	<u>Board Members at Large</u>
Kathy Cabe Trundle	Valarie Akerson and Nate Carnes

Elections Committee

Karen Irving, Rose Pringle and Aimee Govett

The newly-elected officers began their terms at the 2012 ASTE conference in Clearwater, Florida. Please consider running or nominating someone for office for next year.

ASTE Elections Committee,

Debra Hemler, Co-Chair

Erica Brownstein

Sherri Brown, Co-Chair

James McDonald

Rebecca Schneider

Journal of Science Teacher Education Editor Search

The Publications Committee of the *Association for Science Teacher Education* (ASTE) is seeking applications for Editor or Co-Editors for the *Journal of Science Teacher Education (JSTE)*. The duration of appointment is for five and one half years, beginning in January 1, 2013. This term includes a transition period with the current editors at the beginning of the appointment (from January 1, 2013 to June 30, 2013) and a 6-month overlap at the end of the editorial appointment (as a transition period for the new oncoming editors). Thus the new editor(s) responsibilities for the journal will begin January 1, 2013 and end on June 30, 2018.

JSTE is the flagship journal of the *Association for Science Teacher Education*. It is the only English language journal that focuses exclusively on science teacher education and serves to publish high quality articles that advance the field of science teacher education.

The journal disseminates research and theoretical articles concerning science teacher education in both formal and informal educational settings. It adds to what we know about science teaching and learning and, most importantly, serves as a catalyst for thoughtful discussion of applications of theory into practice. The journal publishes data-driven research articles that show evidence of the effectiveness of teaching strategies,

Journal of Science Teacher Education Editor Search Continued

interventions, model programs, new innovations in the field of science teacher education, and theoretical papers that fuel progress in our field.

The JSTE Editor(s) must be a member in good standing of ASTE and a published scholar(s) in the area of science teacher education. This individual(s) should have expertise in research in science teacher education, as well as experience reviewing manuscripts for scholarly refereed educational journals. In addition, the editor will be expected to attend annual meetings of ASTE and serve on the ASTE Publications Committee.

Responsibilities

- Maintain high academic and scholarly standards that are comparable to other highly reputable and “higher tier” journals in the field of science education.
- Engage in responsibilities that are consistent with serving as an Editor that include, but are not limited to; developing procedures for assigning manuscripts for review, notifying authors of the status of their manuscript in a timely manner, providing feedback that is productive to authors, working with authors to revise their manuscripts, maintaining correspondence with Editorial Review Board members (including copies of review summary letters), and thanking outgoing editorial Board members for their contributions.
- Review and develop policies in regard to submitting manuscripts, reviewing manuscripts, and providing feedback to authors.
- Work with the current publisher (Springer) to ensure that publication deadlines are met.
- Work closely with staff who are affiliated with the journal.
- Submit and present a JSTE report for each ASTE Board of Directors’ meeting.
- Work closely with the ASTE Publications Committee, serving as Ad-hoc member(s) of the Publications Committee.
- Work closely with the Publications Committee to understand how the journal can respond to the membership of ASTE.
- Identify and nominate Associate Editors and Editorial Review Board members.
- Participate in two ASTE Publication Committee sponsored sessions during the annual ASTE conference. One session will focus on publishing in ASTE journal and the other will provide information about reviewing for ASTE publications.
- During years in which a contract is negotiated with a publisher, the Editors should work closely with the Publications Committee in negotiating the contract with final approval by the Board of Directors.

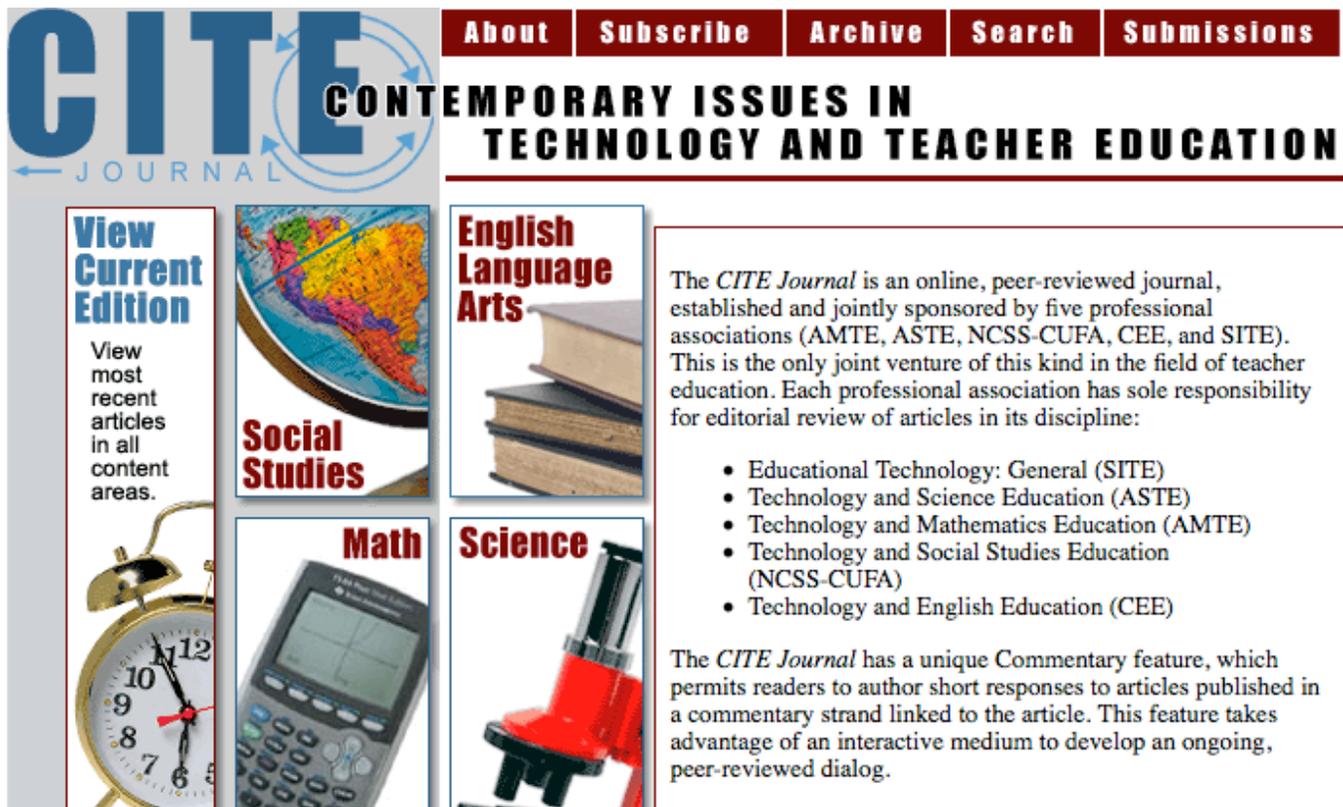
Interested persons should submit a full application to the Chair of the JSTE Editor Search Committee. Full applications for the position are due by April 15, 2012 and should include:

- a cover letter of application
- vita(s)
- a statement detailing institutional support, journal support staff, such as a managing editor, and identified Associate Editors if applicable

Questions may be directed to Alec Bodzin, Chair JSTE Editorial Search Committee, at amb4@lehigh.edu or Ph. (610) 758-5095

Additionally, materials should also be submitted to Alec Bodzin at the same email address provided above.

Call for Papers



The image shows the header of the CITE Journal website. At the top, there is a blue navigation bar with the following links: **About**, **Subscribe**, **Archive**, **Search**, and **Submissions**. Below this is the main title: **CITE** CONTEMPORARY ISSUES IN TECHNOLOGY AND TEACHER EDUCATION JOURNAL. The page is divided into several sections:

- View Current Edition**: View most recent articles in all content areas. (Accompanied by an image of an alarm clock)
- Social Studies**: (Accompanied by an image of a globe)
- English Language Arts**: (Accompanied by an image of stacked books)
- Math**: (Accompanied by an image of a calculator)
- Science**: (Accompanied by an image of a microscope)

The main text on the page reads: "The *CITE Journal* is an online, peer-reviewed journal, established and jointly sponsored by five professional associations (AMTE, ASTE, NCSS-CUFA, CEE, and SITE). This is the only joint venture of this kind in the field of teacher education. Each professional association has sole responsibility for editorial review of articles in its discipline:"

- Educational Technology: General (SITE)
- Technology and Science Education (ASTE)
- Technology and Mathematics Education (AMTE)
- Technology and Social Studies Education (NCSS-CUFA)
- Technology and English Education (CEE)

The *CITE Journal* has a unique Commentary feature, which permits readers to author short responses to articles published in a commentary strand linked to the article. This feature takes advantage of an interactive medium to develop an ongoing, peer-reviewed dialog.

About CITE— Science

Cite— Science is a peer-reviewed online journal for science teacher educators. The journal is co-sponsored by ASTE to publish research reports and theoretical articles on the use of innovative technologies in science teacher education. Authors can include interactive technologies for the readers' direct access to the example technologies such as video, audio, animation or external links.

Manuscript Information

Manuscripts should directly address technology within science teacher education. Papers may focus on science teachers at any career stage including preservice, new, continuing, or teacher leaders and any grade level including college science science teachers. Manuscripts that examine how technologies can improve programs, courses, or professional development as well as collaboration and partnerships are welcome. Papers that describe innovative approaches to technology enhanced science teacher education are specifically encouraged.

Submission Guidelines

1. Go to <http://aace.org/publish>
2. Login with your AACE login information or create a new login.
3. Select 'submit article'. Be sure to select CITE (science), as the journal.

Editor: Rebecca Schneider, University of Toledo

ASTE Forum on Policy and Government Relations

Winter Newsletter Update

The Clearwater conference certainly re-invigorated the efforts of ASTE to become more involved in political advocacy work. Given that it is an election year, things are a bit slow in Washington D.C. and Jodi Peterson from NSTA's Office of Legislative and Public Affairs as well as the STEM Education Coalition has been keeping us informed via web posts, press releases, and monthly Forum phone conferences which we recently initiated. Charter school legislation, teacher evaluation, and the future of AYP and *NCLB* are dominating the federal discussion for the moment. There appears to be little STEM-specific action except for the possibility of science being eliminated from federal testing mandates. Both NSTA and the STEM Ed Coalition will continue to push to keep STEM issues as part of the policy discussions.

During our last phone conference, Forum members listed several concerns that have clear policy implications: overemphasis on multiple choice exams for accountability purposes; the push for pre-service science teachers to obtain a generalist science degree as opposed to a degree from a specific discipline; and the trend of some alternative certification programs to be more test-based rather than practice-based. We've also learned that the federal Department of Education is investigating the use of K-12 student achievement test scores to evaluate teacher preparation programs. These are all issues that impact our profession.

Now is a good time for us to become more involved and to make a solid case for the work that we do. As noted in the NRC report, *Preparing Teachers: Building Evidence for Sound Policy*, science teacher education has a particularly weak evidence base relative to other fields. From our perspective, this is not because we don't have the evidence, but that we do not always do a good job communicating with policymakers and with the general public. This is why advocacy is so important.

We are starting small with items such as building an advocacy center on the ASTE website, signing on to NSTA's initiatives, having regular phone conferences and policy article discussions (a "book club" of sorts), and developing more comprehensive position statements and white papers to provide evidence for what constitutes quality science teacher education. Please consider joining our efforts. Contact me (Joe Shane, jwshan@ship.edu) if you are interested or track me down at NSTA in Indianapolis. We're doing a policy presentation on Saturday, March 31 from 11-12. We'll also contact our counterparts at NARST to see if they would like to partner with us.

ASTE Conference Reflections from Two First-Time Attendees

Zachary Sexton, a junior at Providence College, Providence Rhode Island was a co-presenter with me, Comfort Ateh, Assistant Professor of Education at Providence College, at the Annual International Conference of the Association for Science Teacher Educators in Clearwater, Florida, January 4-7. Participating at the ASTE annual conference was a great experience for Zachary Sexton, who is pursuing a double major (Biology and Secondary Education) and looking forward to a great career in teaching. In reflecting on his experience at ASTE, Zach had this to say: “The convention of the Association of Science Teacher Educators had a great impact on me as an aspiring science teacher. Although the programming was essentially for a higher order of educators the experience has certainly given me a number of moments of reflection. One of the high points of the convention was the keynote address by Dr. Norman Lederman. This address discussed the growing trend in science education that seemed to relegate Nature of Science to an unspoken sort of concept. This was the first time I had ever heard of Nature of Science. This important concept outlines the fundamentals of what science is as a study. I had never considered teaching it at all, but I can now understand its importance. Additionally, I was given the opportunity to present to science teacher educators about my experiences as an undergraduate and prospective science teacher. This was a wonderful opportunity for me to interact with these individuals and to reflect on my growth as a budding science teacher.”

This was also my debut at the ASTE conference as a teacher educator and I enjoyed all the sessions especially the session for first time attendees. My conference mentor Lisa Martin-Hansen, of Georgia State University was very resourceful. Many thanks to the conference committee that set up the new attendee session.



Zachary Sexton presenting at the ASTE annual conference in Florida

Earth and Marine Science Seminar in Hawaii-Summer 2012

Three seminar programs designed for educators are available; 1) Geoscience on the Big Island of Hawaii – July 08-14 & Aug. 5-11; 2) The Geological, Ecological and Anthropological History of the Island of Molokai – July 22-28; 3) The Science of Ecosystems on Kauai – June 23-30. For brochures contact – Chuck Blay at 808-742-8305; teok@aloha.net; website – www.teok.com.

Free Resources from NSTA

NSTA Press allows anyone to download a free sample chapter of any of their titles, including my own 3-volume series, *Brain-Powered Science: Teaching and Learning with Discrepant Events*. This series offers inquiry-oriented activities for use in grades 5-12 classrooms and in preservice and inservice programs (as visual participatory analogies for principles of research-informed teaching).

Go to: <http://www.nsta.org/publications/press/brainpowered.aspx> and click on **Read More** for the individual books and then scroll down to **Read Inside to download the introductory chapter and sample activity**. Additionally, the hundreds of URLs cited in the Internet Connections feature are available for free at: <http://www.nsta.org/publications/press/extras/>. This page also lists free resources from a select group of other NSTA Press titles.

The *three free activities* for the respective books in the *Brain-Powered Science* series are:

- Activity 16. Air Mass Matters: Creating a Need-to-Know [activities that make air “sensible”]
- Activity 15. Measurements & Molecules Matters: Less is More & Curriculum “Survival of the Fittest” [compelling macroscopic evidence for the molecular view of matter]
- Activity 10. Osmosis and “Naked” Eggs: The Environment Matters [a 5E Teaching Cycle unit]

Dr. Thomas O’Brien, Professor of Science Teacher Education
Binghamton University, Graduate School of Education

2012 Butler-Cooley Excellence in Teaching Award

The Turnaround Management Association will award two K-12 teachers a \$5,000 cash stipend and cover transportation and lodging (up to \$1,000) for the TMA 2012 Annual Convention, November 1–3, at the Westin Copley Place, Boston, Massachusetts. TMA, an industry group for corporate restructuring specialists who help troubled businesses, is accepting entries through May 1. Established in 2004 with a grant from the John Wm. Butler Foundation Inc., the Butler-Cooley Excellence in Teaching Awards Program honors teachers who have demonstrated their capacity to change the outcome of students’ lives and communities where they teach. Read guidelines, entry instructions and summaries of previous winners at turnaround.org.

2012 IHPST Conference in Asia

You are cordially invited to the **2012 IHPST Conference in Asia** at Seoul National University (SNU), Seoul, South Korea, **October 18-20, 2012**. This is the first time that Asia has hosted a regional IHPST conference.

The theme of the Conference is **Exploring Science: Contributions from History, Philosophy and Education of Science**. Invited speakers for the conference include Dr. Hasok Chang (Cambridge University), Dr. Igal Galili (Hebrew University of Jerusalem), Dr. Alice Wong (University of Hong Kong), Dr. Norman Lederman (Illinois Institute of Technology), and Dr. Yung Sik Kim (Seoul National University). It is hoped that two academic traditions, the history and philosophy of science and science education, will be meaningfully integrated in the conference through an active exchange of ideas, research results and expertise shared both disciplines.

Abstracts and proposal submissions are due April 30, 2012 and registration begins May 1 - June 30, 2012. Deadline for final on-line registration is September 20, 2012.

Please view the attached flyer for additional information and visit the website to submit proposals and register for the conference <http://ihpst2012.snu.ac.kr>

We look forward to meeting you all in Seoul in October 2012!!

If you have any questions, please contact Jisun Park (email: ihpst2012@gmail.com)

Thank you,

Sonya Martin, PhD

Seoul National University, College of Education
Department of Biology Education

Idaho State University Doctoral Fellowship

Doctoral Fellowship available for Fall 2012. Idaho State University has several 3-year doctoral Fellowships available in the Doctor of Arts in Biology and Doctor of Arts in Mathematics programs. The DA degree combines content area studies and seminars and internships in college teaching with an independent research-based dissertation. Graduates are employed teaching biology or mathematics in primarily undergraduate institutions and community colleges across the US. For more information and how to apply (MS degree, GRE scores, & letters required) please see the ISU website (www.isu.edu) or contact Dr. Rosemary Smith (smitrose@isu.edu) in the Department of Biological Sciences.

ASTE Newsletter

Published four times a year by the Association for Science Teacher Education. All members are invited to submit items.

Issue	Items due by
Summer	Aug. 15
Fall	Oct. 15
Winter	Feb. 15
Spring	May 15

Editor: Todd Campbell
Phone: 435-797-7038
Fax: 435-797-1441
Email: todd.campbell@usu.edu